

**AMENDMENTS TO THE SPECIFICATION:**

**Please amend the paragraph bridging pages 5 and 6, beginning at page 5, line 14, as follows:**

Referring to Fig. 2, there is illustrated a second method of orienting and processing a tissue sample for sectioning in accordance with the present invention. The technician obtains a tissue sample 122 from the examining doctor, nurse or specialist. The technician typically will be given instructions as to how the tissue sample should be oriented for sectioning on a microtome or other cutting device. The technician orients the tissue sample 122 on the bottom of a two-piece processing cassette 124 which includes a removable plastic or metal bottom dish 126. The technician then embeds the tissue sample 122 in the cassette 124 by filling the cassette with molten porous embedding media 128. As before, the porous embedding media should be a material which is normally solid at room temperature and at tissue processing temperatures, and should have a melting point or liquidus point below the temperature at which the tissue sample would become denatured or otherwise changed by heat. The porous embedding media also should be a material that is porous to treating solutions commonly used in fixing and dehydrating tissues. As before, agarose has been found to be a particularly preferred porous embedding media.

**Please amend the paragraph beginning at page 8, line 5, as follows:**

Referring specifically to Fig. 5, the cassette 48 comprises a two-piece body including a top portion 50 and a bottom portion ~~[[52]]~~ 51. Top portion 50 has a perforated bottom wall 52, a front wall 54, a back wall 56, and two side walls 58, 60. Preferably, the front wall 54 includes an angled extension wall 64, which provides a writing surface ~~[[64]]~~ on which a

sample identification label may be affixed. If desired, barcode indicia may be affixed to the underside surface 66 of extension wall 64. Bottom portion ~~[[52]]~~ 51 is snap or friction mounted to top portion 50, and comprises a perforated bottom wall ~~[[78]]~~ 75 and a bridging side wall 70 which spaces the bottom wall ~~[[78]]~~ 75 from the top portion 50, and serves to contain molten porous embedding media. Bridging side wall 70 includes a pair of tear lines or lines of weakness 72 and a pull tab 74. The cassette including the top and bottom portions 50, ~~[[52]]~~ 51 are made of a suitable plastic material compatible with the intended processing and fixing.

**Please amend the paragraph bridging pages 8 and 9, beginning at page 8, line 16, as follows:**

Use of the cassette 48 above described will now be discussed. Again referring to Fig. 5, the technician obtains a tissue sample 76 from the examining doctor, nurse, or specialist. The technician will typically be given instructions as to how the tissue sample should be oriented for sectioning on a microtome or other cutting device. The technician obtains a pre-formed embedding block 78, and forms an opening in the block 78 for the tissue sample, e.g. by cutting, drilling or punching a blind hole or slot. As before, the embedding block 78 preferably comprises a phenolic foam such as a floral mounting block. As mentioned supra, a phenolic foam mounting block is preferred since it is inert and resistant to the liquids typically employed in tissue processing and fixing, porous, widely available, low cost and easy to cut and shape. The embedding block 78 is cut or shaped to fill, at least in part, the bottom portion ~~[[52]]~~ 51 of cassette 48. The embedding block with the tissue sample mounted therein is placed into the

bottom portion ~~[[52]]~~ 51 of cassette 48 with the tissue facing the outside of the cassette. The top portion 50 is then snapped or fitted to the bottom portion ~~[[52]]~~ 51.

**Please amend the paragraph beginning at page 9, line 7, as follows:**

The tissue sample may be automatically processed to remove water and fix the tissue sample, etc. using known processing techniques, the last step being the paraffin infiltration step where the tissue sample and porous embedding media are infiltrated with paraffin and allowed to solidify. Bridging side wall 70 is then peeled off the cassette along the line of weakness 72, and the bottom wall ~~[[68]]~~ 75 removed to expose the embedded tissue sample in the foam block (Fig. 8). The sample may then be sectioned on a microtome.

**Please amend the paragraph beginning at page 8, line 5, as follows:**

Referring specifically to ~~[[Fig. 5]]~~ FIGs. 5 and 6, the cassette 48 comprises a two-piece body including a top portion 50 and a bottom portion 51. Top portion 50 has a perforated bottom wall 52, a front wall 54, a back wall 56, and two side walls 58, 60. Preferably, the front wall 54 includes an angled extension wall 64, which provides a writing surface on which a sample identification label may be affixed. If desired, barcode indicia may be affixed to the underside surface 66 of extension wall 64. Bottom portion 51 is snap or friction mounted to top portion 50, and comprises a perforated bottom wall 75 and a bridging side wall 70 which spaces the bottom wall 75 from the top portion 50, and serves to contain molten porous embedding media. Bridging side wall 70 includes a pair of tear lines or lines of weakness 72 and a pull tab 74. The cassette including the top and bottom portions 50, 51 are made of a suitable plastic material compatible with the intended processing and fixing.